ITD Large Project Post-Implementation Report
DATE: 10/21/05

PROJECT IDENTIFICATION

Project Name: Health Alert Network (HAN)

Project Sponsor: North Dakota Department of Health – Emergency Preparedness & Response (EPR) Section

Project Manager: Barry Stein

A. Product Effectiveness

We are overall satisfied with the alerting product effectiveness and the broadband connectivity to the local public health units (LPHU). The product delivers alerting capacity across many different platforms, including: e-mail, faxing, voicemail (with text-to-speech conversion), cell phone/pager technology, text messaging, and a secure web portal for retrieval of health alert messages. The product also has a message receipt confirmation reporting module with real-time results. In addition, the security mechanism allows end-users access to log into the application and update their profile preferences and contact information. Pushing that responsibility onto the end-user will significantly reduce the amount of the time Department of Health (NDDoH) staff dedicates to tracking down current contact information of HAN participants.

The installation of high-speed, continuous, and secure Intranet/Internet connections for local public health facilities provides access to the Center for Disease Control and Prevention's (CDC) recommendations, practice guidelines, and disease data. In addition, the broadband state network connections have allowed the use of video conferencing to be established as a primary form of communication between the state and the LPHU jurisdictions and also among LPHU dialing directly to one another. The acceptance and use of the video conferencing capabilities has continued to increase in demand since the first units were installed. Cost savings were realized when LPHU administrators were able to reduce travel cost budget line items for the first time in preparing budgets related to public health Emergency Preparedness and Response (EPR) costs. For example, a direct benefit of saving time and money is the reality that LPHU personnel no longer need to travel to Bismarck for the bi-monthly state and regional EPR planning meetings. The eight regional Bioterrorism planning areas from around the state are simply dialed into the EPR meeting and participant from their local jurisdictions. The video conferencing capabilities of the HAN have not eliminated the need for face-to-face meetings, but they have significantly reduced it which saves travel time and travel cost for other initiatives.

The Health Alert Network is continuing to evolve as we move into the future, necessitated by new Bioterrorism Grant guidance that is emerging. For example, one of the future uses of the HAN will be to use the application as a Public Health Emergency Volunteer Reserve (PHEVR) credentialing tool. In this capacity, the HAN will be used to verify the current state license status of every licensed medical professional in the state. Weekly imports of current medical licensing board information will be uploaded in the HAN application. This will become necessary if there is a catastrophic event in North Dakota and medical volunteers would be checking in to help at a mass-vaccination or medical triage facility. The HAN application would have the capacity to identify and verify the medical professional's credentials on the spot.

B. Cost, Scope, Schedule, Quality (CSSQ) Management

We had to invoke changes in our timeline to more accurately reflect a realistic timeframe. One of the things we learned with this project was to be very liberal with time estimates, especially when the application will interact with existing state infrastructure. With that lesson learned, we made the decision to move the project completion date out a year. We felt doing so would provide enough time to complete all of the phases of the project satisfactorily. Having the project divided into phases proved to be a benefit because as we adjusted our timeline, only certain phases were affected. That is because some of the project phases were mutually exclusive and did not require completion of a previous phase before a subsequent phase could begin. We would recommend that approach in future projects as well.

As a result of the CDC reducing federal funding for Bioterrorism grants, the project scope and budget needed to be scaled back because it impacted the project as a whole. A lesson learned here would be that even though we had divided the project up into phases, which proved to very beneficial, dividing the project up into additional phases with an even longer timeline for completion may have been a better approach.

C. Risk Management

One of the main risks of not completing the project was the reduction of our federal grant dollars. When we encountered that exact situation, our contingency plan was to identify a smaller core group of facilities and still complete the project satisfactorily, but on a much smaller basis than the original plan. With subsequent grant cycles we were then able to complete our original vision outside of the scope of this project.

Another risk of the project was that our vendors (including ITD) may not be able to deliver their services in a timely manner that would coincide with the project timelines that we had mapped out. Taking that into consideration, we were cognizant of the fact that within our grant guidance, we were given the unique feature to obligate funds for another twelve month cycle if the actual spending of funds could not occur in the specified timeframe. We took that into consideration when developing our contingency plans. When we realized that we needed to expand the timeline out another year for project completion, we invoked the obligation feature and were able to complete the project on a slightly smaller scale than originally anticipated, but nonetheless successfully.

D. Communications Management
We were very pleased with the regular meetings and ad hoc communications we received from our vendors in relation to this project. However, one of the lessons that we learned is that in coordinating a multi-state agency project, communications between state agencies can be somewhat challenging at times due to differences in priorities and protocols. Perhaps a better approach may have been to have more regularly scheduled meetings with other state agencies to address current issues. At times we even found it somewhat difficult to keep our ITD Large Project Oversight Coordinator (LPOC) up to speed. Part of the reason for this was that our LPOC changed five times throughout the course of the projects implementation. This was mostly due to state employee turnover. Beings it would be impossible to predict that kind of turnover, we had to address the challenge in a reactive mode rather than a proactive mode. However, we were pleased with the all of the project managers that were assigned to us as our project oversight coordinator. Each of them was well qualified and very capable of the duties assigned. With this caliber of personnel to pull from, working from a reactive standpoint was sufficient because within approximately two one-to-one meetings, the new LPOC was usually up to speed on the HAN project.

E. Acceptance Management
The end deliverable of connecting a LPHU to the state network through the installation of a T1 line was very straightforward and easy to accept. The only problem we ever incurred was usually related to the delay of hardware arrival or possibly a glitch in creating a state account for a public health employee.

The deliverables for the alerting application were spelled out in the RFP that was submitted and could be used as a checklist for acceptance. The vendor offered a grace period to which they referred to as a Question/Answer (QA) timeframe. We were instructed to log into the application and test all of the features that we had requested quite extensively. In the case where we found one of the software application features to be nonfunctional or non responsive, the technical team went to work on troubleshooting those issues. Quite simply, with this approach non-working capabilities were not accepted until all bugs were resolved.

F. Organizational Change Management
In an attempt to orientate the NDDoH and the LPHU with the capabilities of the HAN (specifically video conferencing), we contracted with the North Dakota Association of Counties (NDACo). The NDACo helped with the installation of broadband connections throughout the state on a local level and also performed orientation trainings once the new equipment was installed. That technical support maintenance contract remains in place to this day. The NDACo continues to provide assistance with not only the video conferencing equipment and protocols, but also routine training, help desk type questions, and troubleshooting services related to broadband state network connectivity.

G. Issues Management
During project implementation, we spoke to the vendors twice per week as a minimum. It was common in some weeks to speak to the different vendors on a daily basis. This made issue recognition occur in an almost real-time basis and cut down on the time for issue resolution. When larger issues arose and more personnel were needed, we would schedule a planned meeting in which other people of the Department of Health, ITD, or the North Dakota Association of Counties could attend. This process seemed to work well.

H. Project Implementation and Transition
Setting up the project in phases was useful in managing the project and also helped when transitioning from one phase to another because it allowed the project managers to concentrate on much smaller pieces of the project at a time. Also, the vendors previously mentioned QA grace period helped with transitioning to allow a specific timeframe to be used for questions, answers, and additional training. In addition, the documentation that we received from the vendors proved to be very useful and helped with transition.

Even though transition went relatively smooth, we did learn a lesson here with the training provided by the vendor. We had scheduled a training session before the alerting application went live in an attempt to be prepared for final acceptance of the project. However, too much time had passed from the training to the go-live date and everyone needed a refresher course. It would have been more effective to have the training occur after the application was fully up and functional. That lesson learned will be something that we use for future projects.

We currently maintain an annual maintenance agreement with the vendor so that routine user or technical questions can be answered immediately with a phone call or through e-mail.

I. Performance of Project Team/Performing Organization
In the case of the HAN alerting application, there was no real qualitative difference in the level of support provided by the Project Team during implementation compared to the Performing Organization after transition because they were one and the same. The members of the Emergency Preparedness & Response (EPR) section were involved as project team members and were the project sponsors. We were pleased with the responsiveness and cooperation of all of the project team participants.

From an overall perspective, the lessons we learned from this project are:
- Always use very liberal time estimates on large IT projects and build in additional timeframes for troubleshooting unforeseen obstacles.
- Divide the project into smaller phases for easier manageability.
- Identify possible scenarios for a change of project scope and then develop contingency plans or at least identify options to address those changes.
- In addition to ad hoc meetings, use more regularly scheduled weekly meetings to discuss all open issues.
- Schedule training after software application is fully functional.

The EPR section continues to be the Performing Organization in that they would be the ones directly responsible for operation and maintenance of the application. Obviously, the application is open to all members of the Department of Health and several other state agencies (i.e. DoA, BoAH, DEM, HP, etc.), but the EPR section remains responsible for the web application and is the primary user.

In regard to providing broadband connectivity to all of the LPHU, we have tried to maintain a smooth transition from implementation to every day use and acceptance on behalf of the LPHU. One way we were able to be successful in this area was to contract with the North Dakota Association of Counties (NDACo) for both help with the implementation of broadband connectivity to the LPHU and technical support services after implementation. The NDACo was part of the project team for this phase of the HAN project and have stayed on board to help with the transition and acceptance of the performing organization or LPHU. The LPHU have relied on the technical support contract for troubleshooting technical related issues and also providing additional training when needed.